

19

Use of highly aluminous materials in the manufacture of pots for melting optical glass. G. L. Bfremov and K. O. Kumanin. *Keram. i Staklo* 11, No. 12, 13-18 (1934).—The results of studies showed that: (1) The introduction of finely ground kyanite into the mix for glass-melting pots considerably increases the resistance of the pots to the attack of the glass melt. (2) The most effective method was that of using protective kyanite coats on the inside of the pot. (3) The thermal stability of the pots is greatly increased when a dense lining is used on a porous body. (4) Refractory clay with a high iron content can be used for the production of the pot body without affecting the quality of the glass, provided that it is coated with a protective layer. M. V. K.

Construction and operation of platinum-resistor furnaces for the laboratory to operate at 1550°. K. G. Kumanin. *J. Applied Chem.* (U. S. S. R.) 8, 177-183 (1935).—Details of construction using the spiral Pt wire or ribbon winding are given. A. A. Bochtling

PROCEDURES AND PROPERTIES INDEX																										
<p><i>[Handwritten: 18]</i></p> <p>The effect of some experimental factors on the geometrical elements of heating curves. K. G. Kumantin and N. S. Kalen. <i>J. Phys. Chem.</i> (U. S. S. R.) 7, 405-17(1933).—When detg. heating curves for thermogravimetric analysis of clays, it is best to use about 0.5 to 2.0 g. of material packed in a spherical shape with the thermocouple end in the center, heat at a rate of 5° to 10° per min. in the non-temp.-gradient zone of the furnace and best without placing into a crucible. Data are given on various clays. For other materials the conditions for obtaining the most satisfactory curves are different and must be specially detd. in each case. P. H. R.</p>																										
<p><i>[Handwritten: 2]</i></p>																										
<p>ASSOCIATION OF METALLURGICAL LITERATURE CLASSIFICATION</p>																										
<p>RECORDING INDEX</p>																										

1ST AND 2ND COLUMNS																										3RD AND 4TH COLUMNS																									
PROCEDURES AND PROPERTIES INDEX																																																			
<p>CPA</p> <p>Investigation of the resistance of chamotte pieces to attack by fused glass. K. G. Kumanin. <i>Opiko-Mekhan. Prom.</i> 7, No. 8, 6 7(1937); <i>Chem. Zvest.</i> 1937, 11, 4222. In the prepn. of the chamotte pieces for testing, 0.6-1.2% CoO is mixed with the mass as $\text{Co(NO}_3)_3$, decompl. with NH_3. After firing, the potous test bars are heated in a glass melt. As a result of the soln. of the chamotte, CoO is dissolved in the glass. The depth of the color imparted to the glass in this way is a measure of the attack on the chamotte.</p> <p>M. G. Moore</p>																										19																									
<p>ATA 51.4 METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			
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<p>NOV 1964</p>																																																			

COMMON ELEMENTS		COMMON MATERIALS	
<p>17</p> <p>The use of a viscometer in the tank furnace. K. G. Kumanin. <i>Steklo'naya Prom.</i> 1939, No. 1, 19-21; <i>Khim. Referat. Zhur.</i> 1939, No. 7, 86; cf. Karanskil, C. A. 34, 807. --Some defects in the performance of the viscometer can be explained by improper tech. conditions used during its construction. A normal performance of the viscometer in the tank furnace was obtained after the steel ball was replaced by a corundum ball and a better rod was used.</p> <p>W. R. Henn</p>		<p>17</p>	
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>		<p>17</p>	

CP

19

Study of the effect of antimony trioxide on the purification and on a series of physicochemical properties of glass. K. G. Kumanin, *Optiko-Mekhan. Prom.* 9, No. 1, 5-10 (1939).— Sb_2O_3 introduced into a glass batch in the presence of KNO_3 and As_2O_3 is an excellent purifier for glasses which cannot be purified by KNO_3 and As_2O_3 . Sb_2O_3 also has a favorable effect on the properties of glasses, and their absorption (in the visible and ultraviolet) and their chem. resistance.

ASB-SEA METALLURGICAL LITERATURE CLASSIFICATION

62

Ca

The structure and properties of glasses from the point of view of the phase rule. K. O. Kurnanin, *Bull. acad. sci. U. R. S. S., Ser. phys.* 4, No. 4, 598-614 (in English, 614) (1940).—The ternary system $\text{Na}_2\text{O}-\text{BaO}-\text{SiO}_2$ was investigated by keeping the glass in a thermostat at a temp. of 20–60° above liquidus for considerable lengths of time. In most cases x-ray photographs were obtained which resembled the spectra of cryst. substances. A characteristic spectrum corresponds to each cryst. phase. The Debye-gram of glass can be regarded as the shadow of the 1st phase in the cryst. state. During the crystn. of glass that phase is sepd. in the field of which the given glass lies. The min. of crystn. ability of glasses of various compns. coincides with the transition of this compn. in the field of a new phase. The compn. points of flints with a low crystn. ability are distributed along the boundary lines. The internal structure of glass is composed of cytobactical groups whose structure is a single reflection of the structure of the 1st cryst. phase of the given compn. Accurate investigations of the manifold properties of glasses (non-equil. cooled melted silicates) show the discrete course of their change on the boundaries of the phase fields. Within the limits of 1 system or another a stable glass-like state is connected with the phase boundaries of the fields, triple points, etc., where during crystn. competition between the various cryst. phases, often for 1 kind of mol., takes place. From the point of view of the phase rule, glass is the product of a nonequilibrium cooling of a melted soln.; however, for glass there exist an equil. and a nonequil. state. These 2 conceptions are defined by the terms burnt and tempered glass.

W. H. Henna

ASM-A METALLURGICAL LITERATURE CLASSIFICATION

SECONDARY ONE ONLY

THIRD ONE ONLY

FOURTH ONE ONLY

FIFTH ONE ONLY

SIXTH ONE ONLY

SEVENTH ONE ONLY

EIGHTH ONE ONLY

NINTH ONE ONLY

TENTH ONE ONLY

ELEVENTH ONE ONLY

TWELFTH ONE ONLY

THIRTEENTH ONE ONLY

FOURTEENTH ONE ONLY

FIFTEENTH ONE ONLY

SIXTEENTH ONE ONLY

SEVENTEENTH ONE ONLY

EIGHTEENTH ONE ONLY

NINETEENTH ONE ONLY

TWENTIETH ONE ONLY

ONE ONLY

TWO ONLY

THREE ONLY

FOUR ONLY

FIVE ONLY

SIX ONLY

SEVEN ONLY

EIGHT ONLY

NINE ONLY

TEN ONLY

ELEVEN ONLY

TWELVE ONLY

THIRTEEN ONLY

FOURTEEN ONLY

FIFTEEN ONLY

SIXTEEN ONLY

SEVENTEEN ONLY

EIGHTEEN ONLY

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FOURTEEN ONLY

FIFTEEN ONLY

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TWENTY ONLY

1ST AND 2ND OBJECTS		PROCESSES AND PROPERTIES INDEX		3RD AND 4TH OBJECTS	
<p>Viscosity of industrial glasses. B. G. KUMANIN, V. V. FIZIKOV, AND B. I. ZAKHARCHUK. <i>Izvestiya Akad. Nauk SSSR, Otdel. Tekh. Nauk, Inst. Mashinovedeniya, Sverdlovsk. Vysokosti Zhidkostei i Kolloid. Rastvorov</i> (Conf. on Viscosity of Liquids and Colloidal Solns.), 1, 327-29 (1941); abstracted in <i>J. Soc. Glass Technol.</i>, 29 (133) 97 (1945) — At varying conditions of temperature, the inner structure of melts can be characterized by the viscosity and the coefficient of temperature. It is not possible to define exactly the upper and lower limits of the viscosity due to experimental difficulties. Attempts to classify experimental data are not successful owing to the insufficiency of comparison of isotherms (equal temperature) and isocomes (equal viscosity) and the great variety of industrial glasses. The temperature and the viscosity at the liquefying point, however, can represent a suitable criterion for comparison, thus giving a more exact picture of the change of viscosity in accordance with the chemical composition (isoliquids of the viscosity)</p>					
<p>ASB-11A METALLURGICAL LITERATURE CLASSIFICATION</p>					
3RD AND 4TH OBJECTS		SUBJECT MATTER		3RD AND 4TH OBJECTS	
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<p>CA</p> <p>Remarks on the connection between viscosity and the diagram of melting. K. G. Kuzman, <i>Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk, Inst. Mashinostroyeniya, Sovetskoye Voennoye Zhitelstvo i Kolkhoz. Razvitiye (Conf. on Viscosity of Liquids and Colloidal Solns.)</i> 3, 66-9 (1941) (Pub. 1942).—The discussion deals with the system $\text{Na}_2\text{O}-\text{BaO}-\text{SiO}_2$. The phase diagram of this system shows a syncline along the contact lines of $\text{Na}_2\text{O}-\text{BaO}$ and $\text{BaO}-\text{SiO}_2$. The syncline is coupled with a considerable drop in temp. By constructing sections of viscosity isotherms with a const. content of SiO_2, there are obtained minima that correspond exactly to this syncline. At a 65 mol % content of SiO_2 this trough occurs at a BaO content of approx. 10 mol %. The lower the temp. the smaller is the angle made by the lines. At 1400° the line is practically straight. The more general type of viscosity isotherm is represented by curves such as are obtained by keeping the Na_2O at 15 mol %. Here as the BaO increases the viscosity isotherms drop. On the phase boundary of such a diagram there is a clear break in all the isotherms. Isotherms of the system were drawn on a phase diagram of this system. It can be seen from the resulting diagram that the location of the isotherms on the diagram is definitely connected with the nature of the diagram. M. H.</p>		2
<p>ASH-11A METALLURGICAL LITERATURE CLASSIFICATION</p>		
<p>BOOK SYMBOLS</p>		
<p>BOOK SYMBOLS</p>		

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																																																																													
PROCESSES AND PROPERTIES INDEX																																																																																																							
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<p>Polythermal method of studying the crystallization tendency of glasses. K. O. Kuzmanin and E. Ya. Mukhin. <i>Optika-Mekhan. Prom.</i> 10, No. 1, 3-6 (1980).-- Raptl. data show that the polythermal method for studying the crystn. tendency of glasses is reliable and fast. After testing over 200 glasses of different types, it is concluded that this method can be used successfully for studying other problems such as velocity of batch melting, and temp. of vitrification of glass. Problems concerning the development of a suitable elec. furnace are described. M. V. C.</p>																																																																																																							
454-554 METALLURGICAL LITERATURE CLASSIFICATION																																																																																																							
<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td>32</td><td>33</td><td>34</td><td>35</td><td>36</td><td>37</td><td>38</td><td>39</td><td>40</td><td>41</td><td>42</td><td>43</td><td>44</td><td>45</td><td>46</td><td>47</td><td>48</td><td>49</td><td>50</td><td>51</td><td>52</td> </tr> </table>																																																				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
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1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>Relation between the viscosity and the melting diagram. K. G. KUMARIN. <i>Akad. Nauk S.S.S.R., Otdel Tekh. Nauk, Inst. Mashinovedeniya, Sovetskoye Vuzkhol. Zhidkosti i Kolloid. Rastvorov</i> (Conf. on Viscosity of Liquids and Colloidal Solns.), 3, 60-69 (1945); abstracted in <i>J. Soc. Glass Technol.</i>, 30 (139) 125 (1946). The results of this investigation are shown by diagrams. They include (1) melting diagram of the system $\text{Na}_2\text{O}-\text{BaO}-\text{SiO}_2$, (2) isotherms of viscosity of $\text{Na}_2\text{O}-\text{BaO}-\text{SiO}_2$ with $\text{SiO}_2 = 65\%$, (3) more common types of isotherms of the system $\text{Na}_2\text{O}-\text{BaO}-\text{SiO}_2$ with $\text{Na}_2\text{O} = 15\%$ mol., (4) isotherms of the system $\text{Na}_2\text{O}-\text{BaO}-\text{SiO}_2$ at 1200°, showing their relation to the melting diagram, and (5) isotherms of the viscosity of the binary system $\text{Na}_2\text{O}-\text{SiO}_2$. 5 figures.</p>																			
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1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									

PROCESSES AND PROPERTIES INDEX																									
<p><i>la</i> <i>2</i></p> <p>A labile thermoregulator. K. G. Kumanin. Zhur. Priklad. Khim. (J. Applied Chem.) 20, 1242-7(1947).-- A setup for thermal analysis, in which the heating current is controlled by a differential thermocouple, one hot junction of which is immersed in the substance investigated, the other in contact with the wall of the furnace, and the heating is regulated in such a way that the temp. difference Δt between the substance and the furnace is kept const. at all times. In the absence of a thermal effect in the substance, the heater raises the temp. uniformly at exactly the same rate at which the sample is heated by the higher temp. of the furnace; on appearance of an endothermal effect in the sample, the heating current decreases, so that the const. Δt is maintained. Heating and cooling curves recorded with this instrument show thermal arrests much more clearly than the usual differential thermographs. In particular, the level portions of isothermal processes are almost perfectly horizontal. The cooling curve of a ternary $\text{Na}_2\text{O}-\text{BaO}-\text{SiO}_2$ system shows, very distinctly, portions of clearly different slopes corresponding, resp., to cooling of the homogeneous liquid, crystn. of the 1st phase, simultaneous crystn. phases, crystn. of the eutectic (horizontal branch), and cooling of the solid. A curve recorded, on the same system, with the aid of the conventional instrument, shows, at most, only a faint indication of the eutectic arrest.</p> <p style="text-align: right;">N. Thon</p>																									
<p>ASB 16A METALLURGICAL LITERATURE CLASSIFICATION</p>																									

Category : USSR/Optics - Optical technique

K-4

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 2229

Author : Kumanin, K.G., Kapustina, T.P.

Title : Determination of the Depth of the Matte Layer of Ground Glass by Polishing to a Wedge.

Orig Pub : Sb. statey Leningr. inst. ta teorii mekhan. i optiki, 1954, No 11, 42-51

Abstract : No abstract

Card : 1/1

KUMANIN, K.G., prof., red.; GORDON, G.G., inzh., red.; ANIKINA, M.S.,
red. izd-va; ZUDAKIN, I.M., tekhn. red.

[Shaping of optical surfaces] Formoobrazovanie opticheskikh
poverkhnostei; sbornik statei. Moskva, Oborongiz, 1962. 431 p.
(MIRA 15:7)

(Grinding and polishing) (Glass, Optical)

KUMANIN, Mikhail Fedorovich, general-leytenant; MILYUTIN, V.I., red.;
MUKHANOVA, M.D., tekhn. red.

[We are sending the ships to sea]Otppravliaem v pokhod korabli.
Moskva, Voenizdat, 1962. 99 p. (MIRA 16:3)
(Black Sea--World War, 1939-1945--Naval operations, Russian)

KUMANIN, V., master sports

Ura Repin's record. Kryl.rod. 13 no.7:28 J1 '62.
(Airplanes--Models)

(MIRA 16:2)

KUMANIN, V., master sporta

Ukrainian sportsmen are the best. Kryl.rod. 13 no.11:25
N '62. (MIRA 15:12)

(Ukraine--Airplanes--Models)

KUMANIN, V. I.
AID Nr. 984-2 6 June

REFINEMENT OF Cr-Mo-V STEEL BY CERIUM (USSR)

Trusov, L. P., and V. I. Kumanin. Liteynoye proizvodstvo, no. 4, Apr 1963,
34-37. S/128/63/000/004/002/004

The effect of cerium on the properties of a perlitic heat-resistant steel for service at 580°C and 240 at has been investigated at the Central Scientific Research Institute of Technology and Machinery. Cerium was added as mishmetal (50% Ce, 25% La, 15% Nd, and 10% other rare-earth metals) either in furnace or ladle. It was found that 0.20% Ce decreased the total sulfur content, made the sulfide distribution more uniform, and reduced nonmetallic impurities by 30-45% and oxygen content by more than 50%. For tests of mechanical properties, the steel was annealed at 1080-1100°C for 2 hrs, aged at 740-750°C for 5 hrs, and air cooled. The addition of 0.20% Ce was found to increase the yield strength and tensile strength at 580°C from 38.2 to 41.5-42.1 kg/mm² and from 43.5 to 46-46.7 kg/mm², respectively. However, the highest notch toughness at room temperature, 13.2-16.2 kgm/cm², was obtained at 0.50-0.10% cerium. Also, the longest rupture life, 1255 or 363 hrs,

Card 1/2

AID Nr. 987-2 6 June

REFINEMENT OF Cr-Mo-V STEEL [Cont'd]

S/128/63/000/004/002/004

at 500°C under a stress of 20 kg/mm² was obtained with 0.05% cerium added in furnace or in ladle, respectively. In both cases the fracture was intergranular, while nonmodified steel had a transgranular fracture. The creep strength at 500°C and a creep rate of 10⁻⁵ % per hr was found to be 7 kg/mm², compared with 6 kg/mm² for the nonmodified steel. Oxidation resistance of the cerium-modified steels at 600, 650, and 700°C was found to be lower than that of the unmodified metal. [AZ]

Card 2/2

L 41015-66 EWT(m)/T/EWP(t)/MTI IJP(c) JD

ACC NR: AP6021707 (N)

SOURCE CODE: UR/0148/66/000/003/0127/0131

AUTHOR: Blanter, M. Ye; Kumanin, V. I.

438

ORG: All-Union Correspondence Machine Building Institute (Vsesoyuznyy zaochnyy mashino-stroitel'nyy institut)

TITLE: Effect of recrystallization on persistence of structural defects in deformed austenite

SOURCE: IVUZ. Chernaya metallurgiya, no. 3, 1966, 127-131

TOPIC TAGS: austenitic alloy, metal recrystallization, lattice defect, austenite transformation / N23G3 austenitic alloy

ABSTRACT: To clarify the question whether recrystallization may, to one extent or another, preserve the structural defects induced in a material during its deformation, the authors investigated this effect for the N23G3 austenitic alloy (0.04% C, 23.0% Ni, 3.11% Mn, remainder Fe), following is annealing at 850°C and rolling at 200°C with 10, 20, 30, 40, 50 and 60% plastic deformation. After the deformation, the specimens (10x10x3 mm) were heated in a lead bath at 650, 700 and 750°C for from 15 sec to 2 hr, with subsequent quenching. To accomplish $\gamma \rightarrow \alpha$ transformation, this was followed by sharp cooling to -196°C with subsequent slow

Card 1/3

UDC: 669.24'74:620.183

L 41015-66

ACC NR: AP6021707

heating (10°C/hr) to room temperature. The degree of structural imperfection of the alloy was estimated according to the changes in the physical broadening of X-ray line (311) and the microhardness of the recrystallized and nonrecrystallized grains. The amount of austenite and martensite in the alloy was estimated according to the ratio between the integral intensities of the lines (111) γ and (110) α . The higher the degree DPD of plastic deformation is, the more complete is the degree β_{cr} of recrystallization at the moment of abrupt decrease in the number of defects (Fig. 1). Thus, following DPD = 30% and subsequent heating at 700°C, β_{cr}

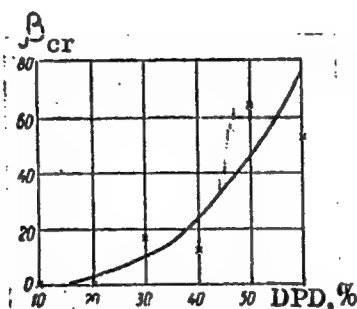


Fig. 1. Effect of degree of plastic deformation DPD on the intensity of recrystallization at the moment of the onset of a sharp decrease in the number of defects

Card 2/3

L 41015-66

ACC NR: AP6021707

decreases by 30% compared with β_{def} and the microhardness of the first recrystallized grains is 102 kg/mm^2 , compared with 120 kg/mm^2 when $\text{DPD} = 50\%$. This indicates a partial redistribution and disappearance of the defects in the course of polygonization even prior to the onset of recrystallization. The intensity of $\delta \rightarrow \alpha$ transformation is affected by the DPD of the austenite. When $\text{DPD} = 60\%$ the austenite undergoes stabilization, but when $\text{DPD} = 40$ and 20% , it undergoes destabilization; neither process, however, is complete at the end of recrystallization, thus providing yet another and highly significant proof of the persistence of part of defects in completely recrystallized material. Orig. art. has: 3 figures.

SUB CODE: 11, 20, 13/ SUBM DATE: 24Jun65/ ORIG REF: 008/ OTH REF: 001

Card 3/3 hs

ABRAMOV, V.V., doktor tekhn. nauk, prof.; ANTIKAYN, P.A., kand. tekhn. nauk, retsenzent; KUMANIN, V.I., inzh., red.; KOZLOV, A.P., red. izd-va; MODEL', B.I., tekhn. red.; DEMKINA, N.F., tekhn. red.

[Residual stresses and deformations in metals; calculations by the differentiation method] Ostatochnye napriazhenia i deformatsii v metallakh; raschety metodom raschleneniia tela. Moskva, Mashgiz, 1963. 354 p. (MIRA 16:8)
(Strains and stresses) (Metals--Testing)

TRUSOV, L.P.; KUMANIN, V.I.

Refining of heat-resistant Cr-Mo-V- steel with small additions of cerium.
Lit.proizv. no.4:34-37 Ap '63. (MIRA 16:4)
(Steel, Heat-resistant—Metallurgy)

VOLEKOV, Yu.V.; VOLKOVA, Z.A.; KAYGORODTSEV, L.M.; BRASLAVSKIY,
V.M., kand. tekhn. nauk, retsenzent; KUMANIN, V.I.,
inzh., red.

[Durability of machines operating in an abrasive medium]
Dolgovechnost' mashin, rabotaiushchikh v abrazivnoi sre-
de. Moskva, Izd-vo "Mashinostroenie," 1964. 114 p.
(MIRA 17:6)

KUMANIN, V., mirovey rekordermen po aviamodel' noma sportu.

"Flying wing" rubberband-powered high-speed plane model. Kryl.rod. 4 no.7:
13-14 J1 '53. (MIRA 6:7)

(Airplanes--Models)

KUMANIN, V.

Flying model airplane with flaps. Kryl.rod. 5 no.7:12 J1 '54.
(Airplanes--Models) (MLRA 7:7)

KUMANIN, V.

AID P - 482

Subject : USSR/Aeronautics
Card 1/1 Pub. 58 - 11/15
Authors : Kumanin, V. and Ivanov, A.
Title : Pupils' Competition for Better Flying Models
Periodical : Kryl. rod., 9, 16, S 1954
Abstract : Remarks concerning the forthcoming aviation model
competition.
Institution : None
Submitted : No date

KUMANIN, V.

AID P - 1079

Subject : USSR/Aeronautics

Card 1/1 Pub. 58 - 9/19

Authors : Kumanin, V., and others

Title : More attention to the sport of aircraft modeling.
(A letter to the editor)

Periodical : Kryl. rod., 12, 16, D 1954

Abstract : This is a complaint that aircraft modelers do not get enough attention from the Central Committee of the DOSAAF. The authors give reasons why this attention should be given and suggest improvements.

Institution : DOSAAF

Submitted : No date

KUMANIN, V.

AID P - 1269

Subject : USSR/Aeronautics

Card 1/1 Pub. 58 - 13/15

Author : Kumanin, V.

Title : ~~High speed rubber powered model~~

Periodical : Kryl. rod., 2, 18-20, F 1955

Abstract : This description gives specifications of a model aircraft. In particular the author discusses: 1. the choice of the weight and dimensions of the model; 2. its design; 3. the selection of the power unit; 4. flying adjustments. Diagrams.

Institution : None

Submitted : No date

KUMANIN, V.

AID P - 5518

Subject : USSR/Aeronautics - Model building

Card 1/1 Pub. 58 - 9/17

Authors : Ryvkin, P., Head of the City of Moscow Model-building Laboratory, V. Kumanin, Master of Sports.

Title : What hinders the model-builders from developing their skills?

Periodical : Kryl. rod., 2, 17, F 1957

Abstract : An analysis of the causes of the Soviet model-building sportsmen lacking creative spirit in their approach to the problems of their sport. The necessity is stressed of a more systematic training of sportsmen interested in model-building.

Institution : None

Submitted : No date

KUMANIN V. master sporta.

Model airplane builders at the start. Kryl. rod. 8 no. 5:20-21 My '57.
(Airplanes--Models) (MIRA 10:6)

KUMANIN, Vladimir Vladimirovich; YEFREMOVA, Ye.V., red.; KARYAKINA,
M.S., tekhn.red.

[Fuselage airplane models with rubber motors] Finzeliashnye
modeli samoletov s rezinovymi dvigateliami. Moskva, Izd-vo
DOSAAF, 1958. 71 p. (MIRA 12:7)
(Airplanes--Models)

Sov/85-58-8-30/40

AUTHOR: Kumanin, V., Master of Sports

TITLE: Build Hydroplane Models! (Stroyte gidromodeli!)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 8, pp 25-26 (USSR)

ABSTRACT: The author describes the essentials of building a hydroplane model.
There are 4 drawings.

Card 1/1

KUMANIN, Vladimir Vladimirovich; YEFREMOVA, Ye.V., red.; MARTYNOV, B.B.,
red.; KARYAKINA, M.S., tekhn.red.

[Regulating and launching flying models] Regulirovka i zapusk
letaiushchikh modelei. Moskva, Izd-vo DOSAAF, 1959. 103 p.
(MIRA 13:2)

(Airplanes--Models)

MAZNICHENKO, L., absol'yutnaya chempionka Sovetskogo Soyuzn po para-
shyutnomu sportu, master sporta; KUMANIN, V., master sporta;
KARAPET'YAN, G., sportsmen 1-go razryada.

Learn how, teach others! Kryl.rod. 11 no.1:8 Ja '60.
(MIRA 13:5)

(Aeronautics--Study and teaching)

KUMANIN, V., master sports, instruktor-aviamodelist

Models of our club. Kryl.rod. 12 no.9:Insert 5 '61. (MIRA 14:9)
(Airplanes-Models)

KUMANIN, V., master sporta; LEBEDINSKIY, M.

Results of the contest of airplane models. IUn.tekh. 6
no.3:20-22 Mr '62. (MIRA 15:4)
(Airplanes--Models)

KUMANIN, Vladimir Vladimirovich, master sports SSSR; YEFREMOV, Ye. V ,
red.; MUKHINA, Ye. S., tekhn. red.

[Airplane models with rubber motors] Modeli samoletov s rezino-
vymi dvigateliami. Moskva, Izd-vo DCSAAF, 1962. 92 p.
(MIRA 16:2)

(Airplanes--Models)

MESHKOVA, I.N.; KUMAN'KOVA, S.A.; TSVETKOVA, V.I.; CHIRKOV, N.M.

Kinetics and mechanism of the polymerization of α -olefins on complex catalysts. Part 5: Kinetics of ethylene polymerization on TiCl_4 - $\text{Al}(\text{iso-C}_4\text{H}_9)_2\text{Cl}$. Vysokom.soed. 3 no.12:1816-1822 D '61. (MIRA 15:3)

1. Institut khimicheskoy fiziki AN SSSR.
(Ethylene) (Polymerization) (Catalysts)

KUMANOV, D.

Controllershhip

Actively help improve intra-departmental financial control. Sov. fin. 13, no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September, 1952~~1953~~, Uncl.

10.11.1957
KUMANOV, D.

The first Soviet economics newspaper. Vop.ekon. no.10:173-176
0 '57.

(Economics--Periodicals)

(MIRA 10:12)

PALIEV, Nhristo, KUMANOV, Kamen

Effect of Biovit-40, copper sulfate, and mic. celoment mixture
added to protein-deficient rations in pig fattening. Selskostop
nauka 2 no.1:82-91 '63.

ATANASOV, N.; NIKOLOV, K.; KUMANOV, Khr.

Kidney transplantation and our 1st animal experiments. Khirurgiia
(Sofia) 18 no. 4: 470-474 '65.

1. Klinika po urologiia, Visssh meditsinski institut, Sofia,
(direktor - dotsent St. Lambrev).

KUMANOV, L.

First editor of the first fire-prevention periodical. Pozh. delo 4
no.6:21 Je '58.

(MIRA 11:5)

(Fire prevention)

KUPANOV, I.

KUPANOV, I. For a greater development of amateur radio. p. 9.

Vol. 5, No. 3, 1956.

RADIO

TECHNOLOGY

Sofia, Bulgaria

So: East European Accession, Vol. 6, No. 2, Feb. 1957

KUMANOV, M.

The initiators presented themselves well. p. 18 RADIO.
(Ministerstvo na poshtite, telegrafite, telefonite i
radioto i Tsentralnia suvet na dobrovlnata organizatsiia
za subeistvie na otbranata) Sofiya. Vol. 5, No. 4, 1956

SOURCE: East European Accessions List (EEAL) Library of
Congress, Vol. 5, No. 11, November 1956

KUMANDV, M.

The Voluntary Civil Defense Organization helped us. p. 9.
ZA RODINATA, Sofiya, Vol. 6, no. 4, Apr. 1956.

SD: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956,
Uncl.

KUMANOV, M.

Enthusiastic activity in the Plovdiv Radio Club. p.5.
(RADIO I TELEVIZIIA, Vol. 6, no. 4, 1957, Sofia, Bulgaria.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957 Uncl.

KUMANOV, S.

KUMANOV, S.; CHESMEEDZHIEV, B.

"Comparative Experiments with Rams, Oxen, and Buffaloes in Order to Establish the Digestibility and Nutritive Value of Field Hay, Wheat Straw, and a Vetch-Oats Mixture", p. 145, (IZVESTIIA, Vol. 3/4, 1952, Sofia, Bulgaria).

SO: Monthly List of East European Accessions, IC, Vol. 3, No. 4, April 1954.

KUMANOV, S

KUMANOV, S.; VULCHEV, P.

"Studies on the Affect of Sunflower, Cotton, Long Radish, and Corn Pellets
Upon the Egg Production of Hens," p. 249. (IZVESTIIA, Vol. 3/4, 1952, Sofiya,
Bulgaria).

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 4, April 1954.

KUMANOV, S.

"Present Conditions of Feeding Livestock in Bulgaria and Measures for its Improvement." p. 47.
Izvestiia, Sofiya, Vol. 5. 1954

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

KUMANOV, S.

"Preparing Forage During Winter." p. 18,
(KOOPERATIVNO ZEMEDELIE, Vol. 9, No. 9, 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

KUMANOV, S.

"With the Medalists of the V.I. Lenin Agricultural Cooperative in the Village of Kurtovo Konare." p. 20.
(KOOOPERATIVNO ZEMEDELIE, Vol. 9, No. 9, 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

KUMANOV, S.

"New Sources of Forage." p. 32,
(KOOPEKATIVNO ZEMEDELIE, Vol. 9, No. 10, 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

COUNTRY : Bulgaria
 CATEGORY : Farm Animals. General Problems.
 ART. JOUR. : ZHIVOT., No. 4, 1959, No. 16615
 AUTHOR : Ivanov, B., Miraljeva, I.; Shabanov, V.
 INST. : Zootechnical Faculty of P. Plovdiv University
 TITLE : PH. Stalks of the Tobacco Plant as Food
 for Animals.
 ORIG. PUB. : Zhurn. na Viss. Selsk. Gosp. Inst. "P.
 Plovdiv." Zastelna. fak., 1959, 6, 159-161
 ABSTRACT : According to data of a chemical analysis and
 experiments of digestibility, the nutritive
 value of 100 kg silage tobacco plants equals
 16 feed units. The digestibility was deter-
 mined in an experiment with two rams. -- A.
 Bershteyn
 CARD: 1/1
 *Institute of Agriculture.

KUMANOV, S.

KUMANOV, S. How many times are cows fed and milked a day? p. 28. Standard schedule
for hand-feeding sucking calves. p. 29.

Vol. 11, no. 8, Aug. 1956

KOOPRATIVNO ZEMEDELIE

AGRICULTURE

Sofia, Bulgaria

SO: East European Accession, Vol. 6, No. 3, March 1957

COUNTRY : BULGARIA
 CATEGORY : Farm Animals. Q'
 : Cattle.
 ABS. JOUR. : RZhBiol., No. 6, 1959, No. 25826
 AUTHOR : Kumanov, Stefan; Ivanov, Nicho; Nestorov,*
 INST. :
 TITLE : The Possibility of Increasing Milk Yields and
 the Milk's Fat Content in Cows.
 ORIG. PUB. : Selsko-stop. mis'l, 1957, 2, No 10, 622-629
 ABSTRACT : A review is presented which uses Soviet as
 well as Bulgarian experiences. The signifi-
 cance of such factors is stressed as the quan-
 tity and quality of fodder which increase milk
 yields and the percentage of fat, as well as
 the presence of such elements in feeds as Ca,
 P, K, S, Cl, Na, Mg, Fe, I, Cu, Mn, Co, and
 others, of vitamins A, C, D, and E, the pre-
 sence of various enzymes which are imperative
 for the synthesis of fat and vegetotropic sub-
 CARD: 1/2
 *Nikola

KUMANOV, S.

Combined silages. p. 29.

(KOOOPERATIVNO ZEMEDELIE, No. 7, July 1957, Sofia, Bulgaria.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957 Uncl.

KUMANOV, Stefan

6430/15

Author: Prof Stefan Kumanov

Title: "Silage Corn - A Valuable Fodder"

Source: Sofia, Kooperativno Selo, 26 Apr 61, p.2

Description: Article gives data on total area sown to corn, ~~including~~ including area sown to corn for grain and corn for silage and fodder; gives figures in decares on area to be put under cultivation by 1965; cites silage production figures for 1950, 1958, 1960, and plans for 1961, gives substantive data on results of tests carried out in recent years in regard to corn cultivation exclusively for silage. /Exceppt/

KUMANOV, Stefan, prof.; TODOROV, N.; KRUSTEVA, E.

Conservation of the fresh alfalfa with dry chemical preparations.
Selskostop nauka 1 no.4/5:493-504 '62.

1. Vissh selskostopanski institut "G. Dimitrov" v Sofia.

KUMANOV, Stefan, prof.; STOLANOV, Vladimir

Production and use of amidated beet slices. Selskostop
nauka 1 no.6:649-664 '62.

1. Vissh selskostopanski institut "G. Dimitrov" v Sofiia.
2. Gl. redaktor, "Selskostopanska nauka".

KUMANOV, St.

Selection of cultivated plants in Holland. Selskostop nauka 1 no.7/8:
875-876 '62.

KUMANOV, Stefan, prof.; ALEKSIEV, Aleksī

Digestibility of ground and whole grain rations for sheep and goats. Selskostop nauka 1 no.10:1125-1130 '62.

1. Vissh selskostopanski intitut "Georgi Dimitrov" v Sofia.
2. Chl.-kor. na Bulgarskata akademiia na naukite i gl. redaktor, "Selskostopanska nauka" (for Kumanov).

KUMANOV, Stefan, prof.

One-celled green algae as source of proteins. Selskostop
nauka 1 no.10:1150 '62.

1. Chlen-korespondent na Bulgarskata akademiia na naukite
i gl. redaktor, "Selskostopanska nauka".

KUMANOV, Stefan

Problem of proteins in stockbreeding. Selskostop nauka 2
no.5/6 :493-504 "63.

KUMANOV, Stefan; ALEKSIEV, Aleksai; KRUSTEVA, Elena

Studies on the use of ammonia water in livestock feeding. Sel'skostonauka 2 no.8:985-992 '63

KUMANOV, Stefan

The Eighth Congress of the Bulgarian Communist Party and the
development of agriculture. Selskoston nauka 2 no.1:1-4 '63.

KUMANOV, Stefan; ALEKSIEV, Aleks1

Composition and nutrient value of sweet sorghum silage.
Selskostop nauka 2 no.1:76-81 '63.

KUMANOV, St.

Stockbreeding in Denmark. Selskostop nauka 2 no.10:1290-1296 '63.

KUMANOV, Stefan; STOIANOV, Vladimir

Composition, digestibility, and nutrient value of feeding stuff for hens. Izv Zhivotn nauki 1 no.1:7-18 '64.

1. Zootechnical Faculty of the G. Dimitrov Higher Agricultural Institute, Sofia. 2. Responsible Editor and Member of the Board of Editors, "Izvestiia na Akademiata na selskostopanskite nauki Zhivotnovudni nauki" (for Kumanov).

KUMANOV, Stefan; ANDREEV, Andrei

Molasses as feed in fattening pigs for meat. Izv Zhivotn nauki 1 no.2:35-41 '64.

1. Zootechnical Faculty of the G. Dimitrov Higher Agricultural Institute, Sofia, Corresponding Member of the Bulgarian Academy of Sciences, and Chief Editor and Member of the Board of Editors, "Izvestiia nauki" (for Kumanov). 2. Institute of Animal Husbandry, Stara Zagora (for Andreev).

KUMANOV, Stefan; KHADZHIDIMITROV, Petur; KARAIVANOV, Rangel

Digestibility of whole and ground grain for horses. Izv
Zhivotn nauki 1 no.2:43-46 '64.

1. Zootechnical Faculty of the G. Dimitrov Higher Agricultural
Institute, Sofia.

KUMANOV, Stefan; MINOV, Petur; KATJAROV, Iako

Comparative studies on the summer pasture and manger feeding
of mother ewes. Selkhozgiz nanka 2 no.9:1136-1142 '64.

KIRMANOV, Stefan; GIMITHOV, Stefan

Influence of the time of mowing on the quantity and quality of
alfalfa hay. Sel'skoye nauka 2 no.9:1143-1152 '64.

KUMANOV, Stefan

Natural or controlled breeding of farm animals. Selskostop
nauka 3 no. 1:19-34 '64.

1. Corresponding Member of the Academy of Agricultural
Sciences.

KUMANOVA, N.D.

[Hero of the Soviet Union Timur Mikhailovich Frunze] Geroi
Sovetskogo Soiuza Timur Mikhailovich Frunze. Moskva, 1960.
13 p. (MIRA 14:2)

1. Moscow. TSentral'nyy muzey Sovetskoy Armii. 2. TSentral'-
nyy muzey Sovetskoy Armii (for Kumanova).
(Frunze, Timur Mikhailovich, 1923-1942)

KUMANOWSKI, Antoni

Petroleum pipeline. Wiadom gorn 10 no. 12:427-429 D '59.

KUMANOWSKI, Antoni, mgr., inz.

Some problems connected with the construction of a petroleum
pipe line. Nafta Pol 16 no.2:46-49 '60.

KUMANOWSKI, M.

"Experiments in Electrical Engineering With the Installation and Exploitation of
Conductors Insulated with Polyvinyl Chloride." p.427
(PRZEGLAD ELEKTROTECHNICZNY Vol. 29, no. 10, Oct. 1953 Warszawa, Poland)

SO: Monthly List of East European Accessions, LC, Vol. 3, no. 5, May 1954/Uncl.

JASIŃSKI, Edward, mgr., inż.; KUMANOWSKI, Marek, mgr., inż.

Resonance phenomena in unit connected generator-transformer
and their influence on protective work against short circuits
in the ground. Przegl elektrotechn 38 no.2:50-54 '62.

JACZEWSKI, Marek, dr inz.; KMIEC, Andrzej, mgr inz.; KUMANOWSKI, Marek,
mgr inz.

Analyzers of transient processes. Pt. 1. Energetyka Pol:Suppl.:
Biul inst energetyki 5 no.5/6:22-24 Je '63.

JACZEWSKI, Marek, dr inż.; KMIĘC, Andrzej, mgr inż.; KUMAROWSKI, Marek, mgr inż.

Transient analyzer. Pt.2. Energetyka Pol 17 no.8:Supplement:
Liul inst energ 5 no.7/8:25-26 Ag '63.

JACZEWSKI, M., dr inz.; KUMANOWSKI, M., dr inz.; KMIEC, A., mgr inz.

Switching surges on a 400 kv transmission system. Przegl
elektrotechn 39 no.9:335-338 S '63.

1. Instytut Energetyki, Warszawa.

KUMANUDI, M.

Problem of diphtheria carriers in a closed institution. Glasn. Hig. inst.,
Beogr. 6 no.1-2:97-104 Jan-June 57.

(DIPHTHERIA, microbiol.

diphtheria carriers in closed institution (Ser))

KUMAR, G.M.

CAND MED SCI

Dessertation: "Application of Sulfamide Preparations in Case of Lung Tuberculosis."

7 Jun 49

Central inst for the Advanced Training of Physicians

SO Vecheryaya Moskva
Sum 71

KUMAR, H.

Examination of the colon with double contrast media with Welin's technic.
Acta chir. iugosl. 4 no.3:273-278 1957.

1. Zavod za rentgenologiju Opće bolnice dr. M. Stojanovica u Zagrebu
(Predstojnik prof. dr. S. Kadrnka)

(COLON, radiography

bis(p-acetonyphenyl)-2-pyridylmethane-tannic acid contrast
medium with air insufflation, Welin's technic (Ser))

(CONTRAST MEDIA

bis(p-acetoxyphenyl)-2-pyridylmethane-tannic acid
radiography of colon, with air insufflation, Welin's technic
(Ser))

KIDMAR, Z.

Some contributions to the anthropogeographical bibliography, 1945-1950. p. 851
(GLASNIK, Vol. 2/3 1953/54 (Published 1957)

SO: Monthly List of East European Accessions (EEAL) LC Vol. 6, No. 12, Dec. 1957
Uncl.

KUMAR, Z:

The present Yugoslav-Italian frontier under the terms of the London Memorandum on the Agreement on Trieste and the newly annexed Istrian territory. p. 939.
(GLASNIK Vol. 2/3 1953/54 (Published 1957)

SO: Monthly List of East European Accessions (EEAL) LC Vol. 6, No. 12, Dec. 1957
Uncl.

KUMAR, Z.

Stevozar Ilesic's System of Land Distribution in Slovenia; a book review. p. 998
(GLASNIK, Vol. 2/3 1953/54 (Published 1957)

SO: Monthly List of East European Accessions (EEAL) LC Vol. 6, No. 12, Dec. 1957
Uncl.

KUMAR, Z.

Anthropogeographical studies of Stara Pazova. p 147
(GLASNIC. Vol. 2/3, 1954/53 (Published 1957)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957
Uncl.

KUMAR, Veljko

Construction of a new port in Koper. Geogr hor 4 no.4:32-34 '59.

KUMARI, A. R.

Estonia - Plovers

Feed of the golden plover and its significance under the varying conditions of the forest zone where it is found. Zool. zhur. 32 No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

KUMARI, E., glav. red.; EILART, J., red.; HANG, E., red.; NIINE, A.,
red.; VAREP, E., red.; TOOMASALU, E., red.

[Protection and planning of landscapes in the Estonian
S.S.R.; reports] Maastike kaitsest ja planeerimisest
Eesti NSV-s ; ottekanded. Tartu, Eesti NSV Teaduste
Akadeemia, 1964. 151 p. [In Estonian] (MIRA 18:7)

1. Nõupidamine maastike kaitse ja planeerimise küsimistes.
Tallinn, 1961.

17/11/55
KUMARI, E.V.

Birds of natural landscapes in southwestern Estonia. Trudy Zool.
inst.no.17:266-294 '55. (MLRA 8:10)
(Estonia--Birds)

Kumari, E. V.

USSR/Scientific Organization--Conferences

Card 1/1 Pub. 86--10/35

Authors : Dement'ev, G. P.; Kumari, E. V.; and Saposhnikov, L. K.

Title : The work of Soviet ornithologists

Periodical : Priroda 44/1, 67--69, Jan 1955

Abstract : A account is given of the Second Conference of Ornithologists held in May of 1954 at the Tallin Institute of Zoology and Botany of the Academy of Sciences of the Estonian SSR. Various papers were read, the principle theme being the migration of birds and a study of the habits of birds with a view to solving some problems affecting the people's economy.

Institution :

Submitted :

KUMARI, E.

USSR/General Division - Conservation of Nature.

A-5

Abs Jour : Ref Zhur - Biologiya, No 7, 10 April 1957, 25764

Author : Kumari, E.

Inst :

Title : The Bird Sanctuary of Matsalu

Orig Pub : Okhota i okhotn. kh-vo, 1956, No 8, 24

Abst : The ornithological *game* sanctuary of Matsalu (Estonia) was instituted in 1954. Observations in the sanctuary have resumed on water birds, and ring marking is being carried out. An epidemiological study of the colony of common sea-gulls has begun. Preparations are being made to make a national park out of the sanctuary.

Card 1/1

KUMARI, E.V.

Results of coordinated observations on bird migrations in the Baltic
Sea region in the autumn of 1954 [with English summary in insert].
Zool.zhur.35 no.8:1214 1222 Ag '56. (MIRA 9:10)

1. Institut zoologii i botaniki AN Estonskoy SSR.
(Baltic Sea region--Birds--Migration)

KUMARI, E.V.

Plenary session of the Baltic Commission on the Study of Bird
Migration. Zool.zhur. 35 no.9:1439 S '56. (MLRA 9:12)
(Baltic States--Birds--Migration)